An answer to some Queries proposed by Mr. William Molyneux, *concerning* Lough-Neagh: *by* Mr. Edward Smyth, Fellow *of* Trinity Colledge *in* Dublin.

1. *WHether* Lough-Neagh *hath really the quality of petrifying Wood?* To this I answer, that no experiment, or observation yet made, (that I can hear of) can prove the *Lough* has this petrifying quality; or that the water do's any way help or promote the petrification; for that two experiments made by a Gentleman of worth and good credit (whose Estate lies contiguous to the *Lough*, and whose curiositie prompted him to a more diligent search into this matter) plainly prove the contrary. For about 19 years ago, he stuck two *Holly-Stakes* (a wood which all agree will sooneſt petrifie in this *Lough*) in two severall places of the *Lough*, near that place where the upper *Band* enters into it; and that part of the stake, which for so long time has been washed by the water, remains there without any alteration, or the least advance towards petrification; as for that part of the stake which is covered by the mud or earth, he has not yet looked on it, but promises to do it this Summer, taking advantage of the fall of the *Lough*, and that too, which report make's the weakeſt, and most unfit for this operation, may seem not to conclude universally of the whole *Lough*; yet are a reasonable cause of doubting that, which ought to be, yet never was backed by any faithfull experiment; and I therefore believe it fabulous; for that had the *Lough* any such Vertue, it would most probably be diffus'd in some measure through the whole. This is true of those *Lakes* whose peculiarities are related by *Varenius*; and this seems evident

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vident from the very nature of liquid bodies; for the parts of all liquid bodies being in a conſtant motion, and mixing with one another, any Vertue received in one part, muſt neceſſarily be diffus'd through the whole, at leaſt in ſome degree, but the ſtakes in this experiment had not ſuffered the leaſt alteration laſt Summer, though they had been almoſt three times ſeven years in the water.

2. *Whether this Qualitie be equally diffus'd throughout the whole* Lough, *or be more ſtrong in any particular parts thereof?* Becauſe there have been no certain experiments made upon all parts of the *Lough*, and much time required to make this tryall we cannot expect a ſpeedy reſolution of this Quæry; Report for the Weſt ſide, and Dr. *Boat* (an Author for whoſe fidelity I vouch not) in his *Natural Hiſtory* of *Ireland*, tells us that as his Brother informed him, who lived in thoſe parts, that water has eſpecially this Virtu about thoſe places, where the *Black* water diſcharges it ſelf into the Lake, but confeſſes he never could find any perſon who himſelfe had made the tryall, and therefore had this information from report, or ſome other way equally uncertain: ſo that there is ſtill good reaſon to believe the water is wholy deſtitute of this petrifying qualitie.

3. *What woods are petrified by the* Lough? *or whether only Holly.* That not only *Holly*, but alſo *Oak*, and ſome other wood has been petrified about this *Lough*, and in the ſoil adjacent, I have ſufficient grounds to conjecture on this account; becauſe ſome Fiſhermen, being tenants of a gentleman from whom I had this relation, told him, they had found buried in the mud of this *Lough* great trees, with all their roots and branches petrified; and ſome of that bigneſs, that they believ'd they could ſcarcely be drawn by a teem of Oxen. They broke off ſeverall branches as big as a mans legg, and many bigger, but could not move the great trunk. If we may credit this relation, we muſt allow ſome other

woods to be petrified beſide *Holly*, for *Holly* never grows to that bigneſs; the largeſt trees being ſcarcely by a third part ſo big; ſo that allowing for the unexactneſs and unfaithfullneſs of the Fiſhermens relation; we have grounds to believe this wood was other then *Holly*; my cheif reaſon for gueſſing it *Oak* is the bulk; no trees in that country, theſe excepted, growing to that prodigious bigneſs: beſides there is much timber found in the mud on ſand on the banks, ſuch as Deal, &c. but no Oak, ſo that I believe what Oak was undermined by the water, was covered with mud, and ſo petrified into Stone, and of this ſort might that be which the Fiſhermen found; for if ſome part of that ground which is now covered by the water, was formerly wood, as is on good grounds believed by thoſe that live therabouts, as it is probable there was much *Oak* in the wood, ſo it is probable there is much buried in the *Lough*; Deal, and other trees are found here without any alteration, but what they might ſuffer in any other water.

4. *Whether the wood or* Holly, *brought from other places, be as apt to be petrified, as what grows in the grounds adjacent to the* Lough? If, as I ſhall make out in my anſwer to the laſt Quæry, this vertue of *petrifying* do's certainly, if not ſolely reſide in the ſoil contiguous to this *Lough*, moſt certainly trees that imbibe ſome of this petrifying Vertue, or theſe Lapideous particles with their nouriſhment, as being already diſpos'd for it, will be more eaſily altered into ſtone.

5. *What time is requiſite to petrifie a piece of a determinate bigneſs*, I heard of no experiment which can reſolve this Quæry, but what report tells us of ſeven years is certainly a fable as to the water, I know of no body who has made tryall of the ſoil.

6. *Whether any has ſeen the ſame body partly wood and partly Stone?* I was informed by two Gentlemen of the North, that this may be frequently ſeen, who alledged they

they themſelves had ſeen the ſame body, wood, and ſtone. But the only reaſon for thinking ſo, being the diverſity of colours which might well enough proceed from ſeverall degrees of petrification, we may probably think them deceived: for they made no experiments on that part which they reputed wood. They further told me that part of the body which touched the ſurface of the water was the partition between the petrified and unpetrified part of it; this further confirms me, they were impos'd on. This ſtone had been often found one part of it rotten and petrified, the other remaining firm and uſefull: but this it has common with other ſtones: whether it became rotten in the wood, or ſtone, may be doubted.

7. *Whether the* Bark *has been ſeen petrified, as well as the* Wood? The *Bark* is never found petrified, as I am informed by a diligent Inquirer, but often ſomething rotten about the ſtone anſwerable to the *Bark*.

8. *Whether any one has certainly made experiment of the* Loughs *petrifying, by putting a piece of wood therein, and there letting it ly till it was petrified?* Several pieces of *Holly* have been put into the *Lough*, but none, that I ever heard of, was ever taken out in any wiſe altered.

9. *Whether there be any Sand-pits nigh about the* Lough *in which theſe pieces of wood (we eſteem petrified) are found?* I never could hear of any ſuch Sand-pits, nor that this petrifying Vertue was ſtronger in any ſuch places; there is a greater quantity of theſe ſtones found in the adjacent ground, and when ground is newly broke, ordinarily turned up in plowing.

10. *Whether the Earth, or Sand about this* Lough *be indued with this Qualitie?* That this Virtue is certainly, if not only, in the ground or ſoil I judge for theſe reaſons, that there are many ſtones turned up daily eſpecially at their breaking up new ground; which we cannot in any probabilitie think were brought thither; they are often

found at two miles diſtance from the *Lough*, ſeldom further, in great numbers, and very deep in the ground; now for what uſe and reaſon they ſhould be brought thither I can't imagine: but becauſe there may be exceptions againſt this reaſon I ſhall produce another, which I believe will plainly prove this aſſertion, it being matter of fact. The Gentleman on whoſe credit I received this information, had occaſion one day to ſurvey a part of his own land, and at a ſmall diſtance from the *Lough*, he ſaw a ſtump of a tree juſt digged out of the ground, which by handling of it he found petrified; his Servant that digged it up, ſtanding by him, told him he had juſt rooted it out of the ground: he aſſured me the roots and all were ſtone, and altogether like thoſe ſtones that are ordinarily found and go by the name of *Lough-Neagh* ſtones. This certainly proves the ſoil to have this petrifying Vertue, which was never yet proved of the water. This Gentleman was of opinion theſe were *Lapides ſui generis*, till this obſervation convinced him: and I believe the wood, which I before mentioned that was found by the Fiſhermen *petrified*, ows its petrification to the ſoil and not to the water. But that theſe ſtones were once wood is I think very certain, for they ſhew the plain *veſtigia* of wood, they likewiſe burn, cleave; filings of this ſtone thrown in the fire emitt a fragrant ſmell: they cut kindly with a knife, though not ſo eaſily, as other wood: but had they none of theſe properties, the inſtance now alledged, I think, is as convincing as Demonſtration.